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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,622	04/17/2001	Jim Vercruyssen	TB2-084	8052

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[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2831

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/837,622	VERCRUYSSEN ET AL.	
	Examiner	Art Unit	
	Anton B Harris	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 May 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-28 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5, 6, 8, 10, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Koenig et al. (5,991,312 cited by Applicant).

Regarding claim 1, Koenig et al. (abstract) discloses a telecommunications cabinet assembly comprised of:

- (a) a cabinet framework 20 with a first end and a second end;
- (b) a plurality of DSX-1 jack assemblies 40 mounted on the cabinet framework 20; and
- (c) at least one multiplexer 46 mounted on the cabinet framework 20 and disposed to be accessed from the first end of the cabinet framework.

Regarding claim 3, Koenig et al. (col. 7, line 59) discloses that the plurality of DSX-1 jack assemblies 40 are each removably secured to the first end of the cabinet framework 20.

Regarding claim 5, Koenig et al. (figure 11) clearly discloses an M13 multiplexer/demultiplexer (right of reference number 68).

Regarding claim 6, Koenig et al. (col. 6, lines 34-49) discloses a backplane circuit board assembly 90 electrically connected to the at least one multiplexer 20 and the plurality of DSX-1 jack assemblies 40.

Regarding claim 8, Koenig et al. (figure 9) discloses at least one multiplexer 20 is mounted in the same horizontal plane as the plurality of DSX-1 jack assemblies 40.

Regarding claim 10, Koenig et al. (col. 4, lines 3-24) discloses

(a) a high speed transmission line interface unit 24 responsible for signal input-output interface with a set of sending and receiving high speed transmission lines;

(b) a low speed transmission line interface unit 22 responsible for signal input-output interface with a set of sending and receiving low speed transmission lines; and

(c) a multiplex converting unit 42 for performing multiplexing and demultiplexing between high speed signals transmitted on the high speed transmission lines and low speed signals transmitted on the low speed transmission lines.

Regarding claim 12, Koenig et al. (col. 4, lines 3-24) discloses

(a) a backplane printed circuit board assembly mounted to the cabinet framework 20; and

(b) an interconnect printed circuit board electrically coupling the jack assemblies with the backplane printed circuit board assembly (col. 6, lines 46-48).

Regarding claim 13, Koenig et al. (figure 5) clearly discloses that the plurality of jack assemblies are disposed to be accessed from the front end of the cabinet framework 20.

Regarding claim 14, Koenig et al. (figure 5) clearly discloses

(a) a cabinet framework with a first end and a second end, and wherein the framework defines a width dimension to a height dimension ratio which is greater than one;

(b) a plurality of DSX-1 jack assemblies 40 mounted on the cabinet framework 20; and

(c) at least one multiplexer mounted on the cabinet framework 20.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 2, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koenig et al. in view of Werner (5,938,478 cited by Applicant).

Regarding claim 2, Koenig et al. discloses the invention substantially as claimed, but lacks a jack assembly comprised of (a) a front panel portion which includes a single column of at least one sleeve for receiving a plug therein; (b) a switch assembly support portion; and (c) at least one switch assembly positioned within the framework rearward from the corresponding sleeve, the switch assembly being adapted to receive and make electrical contact with a plug inserted in the corresponding sleeve.

Werner (col. 3, line 3 – col. 4, line 30) teaches (a) a front panel portion 2a which includes a single column of at least one sleeve 6 for receiving a plug (col. 4, lines 7-8) therein; (b) a

switch assembly support portion 2b; and (c) at least one switch assembly 5 positioned within the framework rearward from the corresponding sleeve 6 (col. 3, lines 20-23).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Koenig et al. by including a front panel portion which includes a single column of at least one sleeve for receiving a plug therein, a switch assembly support portion, and at least one switch assembly positioned within the framework rearward from the corresponding sleeve in order to receive and make electrical contact with a plug in view of the teachings of Werner.

Furthermore, it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

Regarding claim 20, Koenig et al. (col. 4, lines 3-24) discloses a telecommunications cabinet assembly comprised of:

- (a) a cabinet framework 20 with a first end and a second end;
- (b) a plurality of DSX-1 jack assemblies 40 mounted on the cabinet framework 20,
- (c) at least one multiplexer mounted on the cabinet framework 20;
- (d) a backplane circuit board electrically connected to the at least one multiplexer and the plurality of DSX-1 jack assemblies (col. 6, lines 46-48), but lacks each jack assembly being comprised of a front panel portion which includes a single column of at least one sleeve for receiving a plug therein, a switch assembly support portion, and at least one switch assembly positioned within the framework rearward from the corresponding sleeve, the switch assembly

being adapted to receive and make electrical contact with a plug inserted in the corresponding sleeve.

Werner (col. 3, line 3 – col. 4, line 30) teaches a front panel portion 2a which includes a single column of at least one sleeve 6 for receiving a plug (col. 4, lines 7-8) therein; a switch assembly support portion 2b; and at least one switch assembly 5 positioned within the framework rearward from the corresponding sleeve 6 (col. 3, lines 20-23).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Koenig et al. by including a front panel portion which includes a single column of at least one sleeve for receiving a plug therein, a switch assembly support portion, and at least one switch assembly positioned within the framework rearward from the corresponding sleeve in order to receive and make electrical contact with a plug in view of the teachings of Werner.

Furthermore, it has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138.

Regarding claim 21, Koenig et al. (col. 6, lines 34-49) discloses a backplane circuit board assembly 90 is electrically connected to the at least one multiplexer 20 and the plurality of DSX-1 jack assemblies 40 by a backplane interconnect conductor 94, 96, 98.

5. Claims 4, 9, 15-19, and 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koenig et al.

Regarding claim 4, Koenig et al. discloses a plurality of DSX-1 circuits 40, but does not teach at least forty-two DSX-1 circuits. However, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to provide at least forty-two DSX-1 circuits, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claim 9, Koenig et al. (figure 11) discloses at least one multiplexer is comprised of one active multiplexer, but does not disclose one standby multiplexer.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide one standby multiplexer, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claim 15, Koenig et al. (figure 5) discloses a framework that defines a width dimension to a height dimension ratio that is greater than one, but does not disclose a framework that defines the width dimension to height dimension ratio at greater than three and less than four.

However, it would have been an obvious design choice to provide a framework that defines the width dimension to height dimension ratio at greater than three and less than four, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Regarding claim 16, Koenig et al. (figure 5) discloses a framework that defines a width dimension, but does not disclose a framework defines the width dimension to be in a range from 14 inches to 24 inches.

However, it would have been an obvious design choice to provide a framework that defines the width dimension to be in a range from 14 inches to 24 inches, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

Regarding claims 17 and 25, Koenig et al. (figure 5) discloses a framework that defines a height dimension, but does not disclose a framework defines the height dimension to be in a range from 3 inches to 6 inches.

However, it would have been an obvious design choice to provide a framework that defines the height dimension to be in a range from 3 inches to 6 inches, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

Regarding claims 18, 24, and 26, Koenig et al. (figure 5) discloses

- (a) a cabinet framework 20 with a first end and a second end;
- (b) a plurality of DSX-1 jack assemblies 40 mounted on the cabinet framework 20; and
- (c) at least one multiplexer mounted on the cabinet framework 20 being electrically connected to a plurality of DSX-1 jack assemblies, but does not disclose a cabinet framework configured to mount to a nineteen inch wide distribution rack, at least forty-two DSX-1 jack assemblies, and at least two multiplexers mounted on the cabinet framework, and the at least two multiplexers being electrically connected to the at least forty-two DSX-1 jack assemblies.

However, it would have been an obvious design choice to provide a cabinet framework configured to mount to a nineteen inch wide distribution rack, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide at least forty-two DSX-1 jack assemblies, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide at least two multiplexers mounted on the cabinet framework, and the at least two multiplexers being electrically connected to the at least forty-two DSX-1 jack assemblies, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claim 19, Koenig et al. (col. 6, lines 34-49) discloses a backplane circuit board assembly 90 electrically connected to the at least one multiplexer 20 and the at least forty-two DSX-1 circuits.

Regarding claim 22, Koenig et al. (figure 5) discloses a cabinet framework 20 with a first end and a second end; a first set of DSX-1 jack assemblies 40 mounted on and disposed to be accessed from the first end of the cabinet framework 20; a first multiplexer mounted on and disposed to be accessed from the first end of the cabinet framework 20, the first multiplexer

being electrically connected to the first set of DSX-1 jack assemblies 40, but does not disclose a cabinet framework having a vertical height of less than twelve inches, and at least twenty-eight DSX-1 jack assemblies.

However, it would have been an obvious design choice to provide a cabinet framework having a vertical height of less than inches, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Also, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide at least twenty-eight DSX-1 jack assemblies, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claim 23, Koenig et al. (col. 6, lines 46-48) discloses the first multiplexer 20 electrically connected to the first set of DSX-1 jack assemblies 40 through a backplane printed circuit board assembly 90.

Regarding claim 27, Koenig et al. (figure 5) discloses a cabinet framework 20 with a first end and a second end; a first set of DSX-1 jack assemblies 40 mounted on and disposed to be accessed from the first end of the cabinet framework 20; a first multiplexer mounted on and disposed to be accessed from the first end of the cabinet framework 20, the first multiplexer being electrically connected to the first set of DSX-1 jack assemblies 40, and the first multiplexer mounted on a same horizontal plane within the cabinet as the first set of DSX-1 jack assemblies (figure 9), but does not disclose a cabinet framework having a vertical height of less than twelve inches.

However, it would have been an obvious design choice to provide a cabinet framework having a vertical height of less than twelve inches, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

6. Claims 7 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koenig et al. in view of Aponte et al. (5,882,217).

Regarding claim 7, Koenig et al. discloses the invention substantially as claimed, but lacks at least one DSX-3 jack assembly.

Aponte et al. (col. 1, line 56) teaches at least one DSX-3 jack assembly 10.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Koenig et al. by including at least one DSX-3 jack assembly in order to be used in telephone cross-connect systems in view of the teachings of Aponte et al.

Regarding claim 28, Koenig et al. (figure 5) discloses a cabinet framework 20 with a first end and a second end, a plurality of DSX-1 assemblies mounted on the cabinet framework 20; and at least one multiplexer mounted on the cabinet framework 20 and electrically connected to the plurality of DSX-1 assemblies but lacks a plurality of DSX-3 assemblies.

Aponte et al. (col. 1, line 56) teaches at least one DSX-3 jack assembly 10.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a plurality of DSX-3 assemblies, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koenig et al. in view of Zwan et al. (5,991,270).

Regarding claim 11, Koenig et al. discloses the invention substantially as claimed, but lacks an optical fiber interface.

Zwan et al. (col. 6, line 17-21) teaches an optical fiber interface 40.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Koenig et al. by including an optical fiber interface in order to perform clock and data recovery in view of the teachings of Zwan et al.

Response to Arguments

8. Applicant's arguments filed 20 May 2003 have been fully considered but they are not persuasive.

In response to Applicant's argument regarding claims 1-3 that Koenig lacks the DSX1 jack assemblies, the Examiner disagrees because Koenig (col. 5, line 65-col. 6, line 15) discloses a plurality of DSX1 jack assemblies.

In response to Applicant's argument that Koenig lacks the DSX1 jack assemblies and a multiplexer cabinet, the Examiner disagrees because Koenig (col. 6, lines 25-33) discloses DSX1 jack assembly and a multiplexer cabinet.

In response to Applicant's argument regarding claims 2, 4, 9, 15-21, and 22-27 that there is no reason to combine Koenig and Werner, the Examiner disagrees because Werner (col. 3, lines 12-16) teaches the motivation to combine the two references.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anton B Harris whose telephone number is (703) 305-4764. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dean Reichard, can be reached on (703) 308-3682. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-1341.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

abh

8/11/03

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